User Guide

DVI & HDMI

DVI DA Plus Series

DVI Distribution Amplifiers

Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

68-1536-01 **Rev. D**
04 10

Precautions

Safety Instructions • English

This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions• Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions• Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

Eviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Avertissement

Alimentations• Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

Déconnexion de l'alimentation• Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

Lithium Batterie • Il a danger d'explosion s'll y a remplacment incorrect de la batterie. Remplacer uniquement avec une batterie du meme type ou d'un ype equivalent recommande par le constructeur. Mettre au reut les batteries usagees conformement aux instructions du fabricant.

Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits-und Bedienungsanleitungen genau durchlesen und verstehen.

Aufbewahren der Anleitungen • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

Keine Zusatzgeräte • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromunterbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stomversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

Schlitze und Öffnungen • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

Litium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Conservar las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean especificamente recomendados por el fabricante, ya que podrian implicar riesgos.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

Desconexión de alimentación eléctrica • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

Protección del cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalientamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

安全须知 • 中文

这个符号提示用户该设备用户手册中有重要的操作和维护说明。

这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

阅读说明书 • 用户使用该设备前必须阅读并理解所有安全和使用说明。

保存说明书 • 用户应保存安全说明书以备将来使用。

遵守警告 • 用户应遵守产品和用户指南上的所有安全和操作说明。

避免追加 • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

警告

电源 • 该设备只能使用产品上标明的电源。 设备必须使用有地线的供电系统供电。 第三条线（地线）是安全设施，不能不用或跳过 。

拔掉电源 • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

电源线保护 • 妥善布线， 避免被踩踏，或重物挤压。

维护 • 所有维修必须由认证的维修人员进行。 设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

通风孔 • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。 不要用任何东西挡住通风孔。

锂电池 • 不正确的更换电池会有爆炸的危险。必须使用与厂家推荐的相同或相近型号的电池。按照生产厂的建议处理废弃电池。

FCC Class A Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

The Class A limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

NOTE: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance with FCC emissions limits.

The following symbols are used in the manual and have the following meanings:

TIP: A Tip provides a suggestion to make setting up or working with the device easier.

NOTE: A Note draws attention to important information.

CAUTION: A Caution warns of things that might damage the equipment.

WARNING: A Warning warns of things that might cause injury, death, or other severe consequences.

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Introduction

About this Manual

This manual describes the installation, operation, and specifications of the Extron DVI DA4 Plus, DVI DA6 Plus, and DVI DA8 Plus Distribution Amplifiers.

Unless stated otherwise, all references to the "distribution amplifier" or "DVI DA Plus Series" in this manual refer to the features or operation of all three models.

About the DVI DA Plus Series

These Digital Visual Interface (DVI) Distribution Amplifiers (DAs) accept one single link DVI-D input and distribute four (DVI DA4 Plus), six (DVI DA6 Plus), or eight (DVI DA8 Plus) single link DVI-D output signals.

All three models use the Extron EDID Minder feature to maintain continuous EDID (Extended Display Identification Data) communication with the attached source. This ensures that the DVI source powers up correctly and maintains a proper video output, even if the display is off.

The DVI DA4 Plus is 1U high and half a rack wide. The DVI DA6 Plus and DVI DA8 Plus are both 1U high and a full rack wide. All three models offer a variety of mounting options.

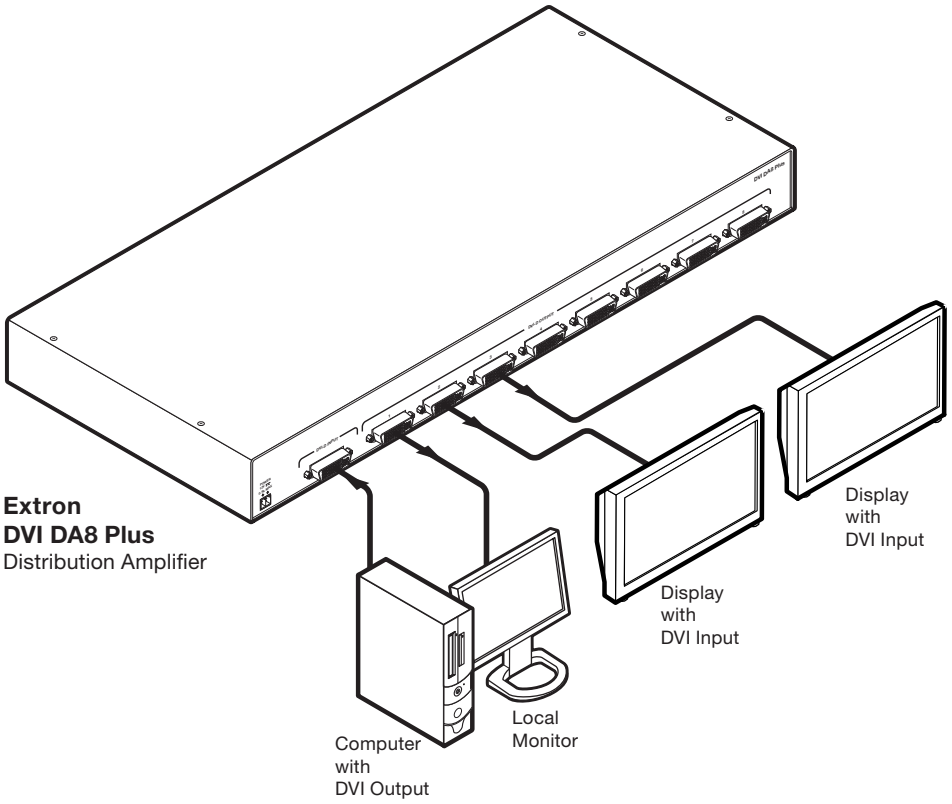


Figure 1. Typical Application for the DVI DA8 Plus

Features

EDID Minder™ — The EDID Minder maintains continuous EDID (Extended Display Identification Data) communication with the attached source. This ensures that the DVI source powers up correctly and maintains a proper video output, even if the display is off.

High resolution DVI-D input — The distribution amplifiers accept one single link DVI-D input, with a resolution range up to 1920 x 1200 or 1080p @ 60 Hz.

Input equalization — Input Equalization (EQ) conditions the input signals to ensure the integrity of the signals delivered to the output devices.

DVI-D outputs — The units distribute four (DVI DA4 Plus), six (DVI DA6 Plus), or eight (DVI DA8 Plus) single link DVI-D output signals simultaneously, at resolutions up to 1920 x 1200 or 1080p @ 60 Hz.

External power supply — All three models are powered by an external 12 VDC power supply (provided with the units).

Power on pin 14 — The distribution amplifiers provide a 5 VDC (250 mA) output.

Front panel indicator LED — The LED light on the front panel provides feedback about power status and whether an input signal is detected.

Versatile mounting options — All three units can be mounted in a rack, under a desk or set on a tabletop.

Installation

This section describes:

- Installation Overview
- Rear Panel Features

Installation Overview

All three distribution amplifiers can be mounted on tabletops, under furniture, and in racks by following these steps:

1. Ensure that the input sources, the distribution amplifier and the output display(s) are all turned off and all power sources and signal cables are disconnected.
2. Mount the unit as described in "Mounting" on page 13.
3. Connect the cables (see "Rear Panel Features", on page 4).
4. Plug in the power supply, turn on the display devices and, finally, turn on the input devices.

Rear Panel Features

The rear panels for the DVI DA4 Plus (top panel), the DVI DA6 Plus (middle panel), and DVI DA8 Plus (bottom panel) are shown below:

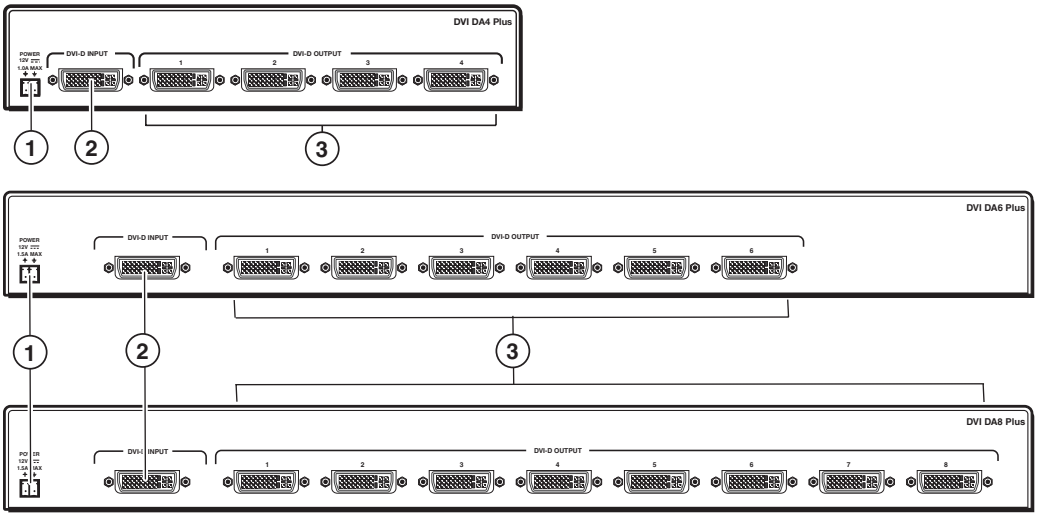


Figure 2. Rear panel features

① **Power input —** Connect the two pole, 3.5 mm captive screw connector from the power supply (provided with the unit) to this orange socket on the rear panel.

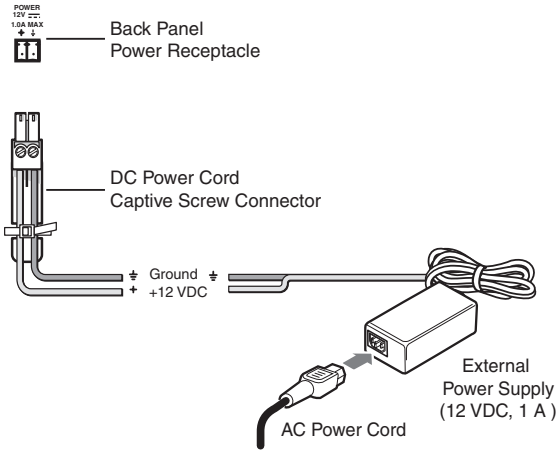


Figure 3. Power Supply Connection

The external power supply in the illustration above (12 VDC, 1 A) is for use with the DVI DA4 Plus. The DVI DA6 Plus and DVI DA8 Plus use a 12 VDC, 3 A external power supply.

CAUTION: These products are intended to be supplied by a Listed Power Unit marked "Class 2" or "LPS", rated 12 VDC, maximum 1.0 A (DVI DA4 Plus) or maximum 3.0 A (DVI DA6 Plus and DVI DA8 Plus. Always use a power supply supplied by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.

Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. The power supply is to be located within the same vicinity as the Extron A/V processing equipment in an ordinary location, Pollution Degree 2, secured to the equipment rack within the dedicated closet, podium or desk.

The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 75 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to building structure or similar structure.

NOTE: The length of the exposed wires in the stripping process is critical. The ideal length is 3/16 inches (5 mm). Any longer and the exposed wires may touch, causing a short circuit between them. Any shorter and the wires can be easily pulled out even if tightly fastened by the captive screws.

Do not tin the wires. Tinned wire does not hold its shape and can become loose over time.

② **Input connector —** Connect a single link DVI-D source device, with a resolution range up to 1920 x1200 or 1080p @ 60 Hz, to the female DVI-I input, using a DVI cable.

NOTE: Although these distribution amplifiers have DVI-I connectors, they are only compatible with single link DVI-D video signals.

Input EQ conditions input signals to ensure the integrity of the signals delivered to the output devices.

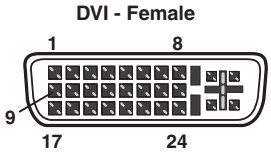
③ **Output Connectors** — Use DVI-I cables to connect up to four (DVI DA4 Plus), six (DVI DA6 Plus) or eight (DVI DA8 Plus) display devices.

NOTE: The actual signal transmission distance can vary and depends on signal resolution, cable quality, graphics card, and display used in the system.

DVI connector pin assignments

The illustration below shows the pin assignments for the DVI-I connectors. See the note under input connectors for information about DVI signal compatibility.

NOTE: The DVI DA Plus series distribution amplifiers are not High-Bandwidth Digital Content Protection (HDCP) compliant.



Pin	Signal	Pin	Signal	Pin	Signal
1	TMDS data 2–	9	TMDS data 1–	17	TMDS data 0–
2	TMDS data 2+	10	TMDS data 1+	18	TMDS data 0+
3	TMDS data 2/4 shield	11	TMDS data 1/3 shield	19	TMDS data 0/5 shield
4	Spare	12	Spare	20	Spare
5	Spare	13	Spare	21	Spare
6	DDC clock	14	+5 V power	22	TMDS clock shield
7	DDC data	15	Ground	23	TMDS clock+
8	Spare	16	Hot plug detect	24	TMDS clock–

Operation

This section of the manual provides information on:

- Front Panel Features
- Operation
- EDID Minder
- Disabling the EDID Minder
- Troubleshooting

Front Panel Features

The figure below shows the front panel for the DVI DA4 Plus (upper panel). The front panel for the DVI DA6 Plus/DVI DA8 Plus are identical and shown in the lower panel.

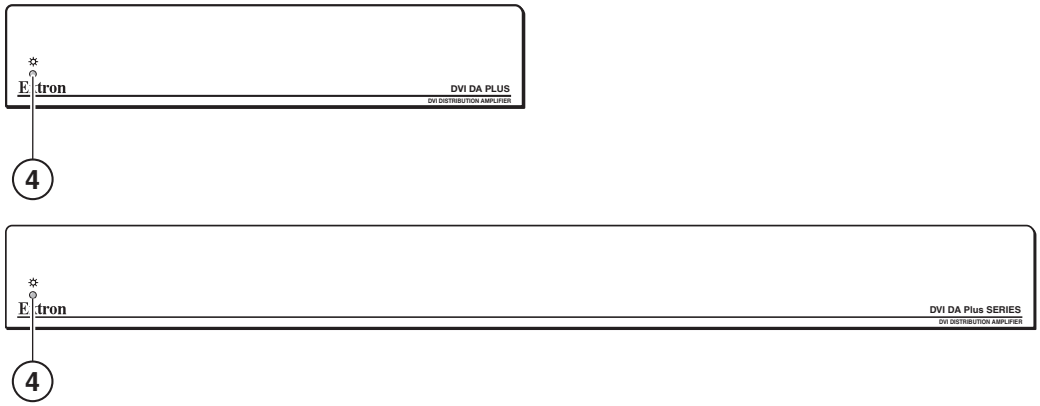


Figure 4. DVI DA Plus Series Front Panel Features

④ **LED indicator —** This LED indicator lights amber when the unit is receiving power but no input signal. When the unit detects an input signal, the LED lights green.

Operation

Once the distribution amplifier has been installed and the cables have been connected:

1. Power on the display device(s).
2. Power on the distribution amplifier. The LED will light amber to show that the unit is receiving power.
3. Power on the input device.

EDID Minder™

When a DVI video source boots up, it normally communicates with the output device using the bidirectional Extended Display Identification Data (EDID) communication protocol. The output device then produces a signal with a resolution that is compatible with the output device.

The Extron EDID Minder feature maintains continuous EDID communication with the attached source and ensures that the DVI source powers up correctly and maintains a proper video output even if the display is off, or when a new monitor is connected to the output.

When the distribution amplifier is powered on, it automatically scans all detectable outputs, selects the device with the lowest native resolution and passes the EDID information from that device to the input device.

While the distribution amplifier remains powered on, it monitors the Hot Plug Detect (HPD) signal on each output and repeats the scan process every time a display is connected or disconnected.

If all outputs displays are removed, the EDID provided is that of the last stored display to which the distribution amplifier was connected. If no output device has previously been connected to the unit, or the unit has been through a power cycle with no displays attached, the EDID uses the factory default, reporting a native rate of 1024 x 768.

Disabling the EDID Minder

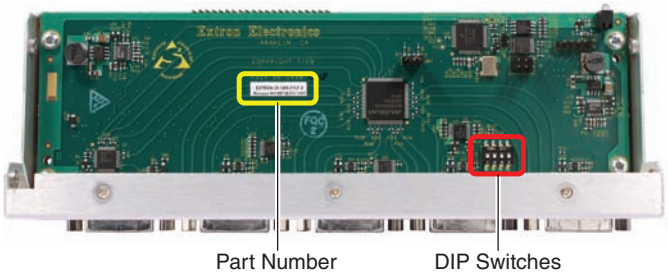
Some applications require that the distribution amplifier does not automatically read the EDID from one or more specific outputs. In those cases, the EDID Minder feature can be disabled so those specific outputs are ignored during the automatic scanning process:

1. Remove and keep the screws holding the cover to the base. For the DVI DA4, there are three screws along the rear edge of the top and two screws on each side. For the DVI DA6 and DVI DA8, there are four screws along the rear edge of the top and three screws along each side. Set aside the top.

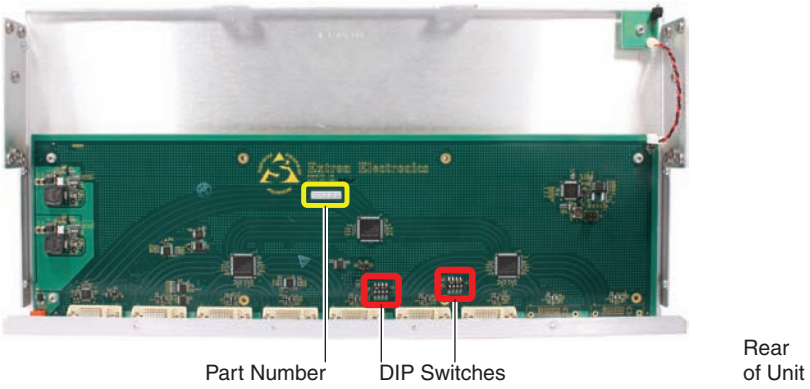
2. Check the part number of the printed circuit board (outlined in yellow in the figures below). The boards must have a part number of 20-1496-01LF and higher for the DVI DA4 or 20-1497-01LF and higher for the DVI DA6 or DVI DA8.

   NOTE: If the board's part number is lower than these values, you cannot deactivate the EDID Minder on your model. Replace the cover as described in step 5.

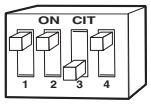
3. Locate the DIP switches. There is a single bank of four switches for the DVI DA4 (outlined in red in the figure below). Each switch regulates the correspondingly numbered output (1-4).



There are two banks of four switches for the DVI DA6 (outlined in red in the figure below) and the DVI DA8. In the bank to the left in the figure below, each switch regulates the correspondingly numbered output (1-4). In the bank to the right, switches 1 and 2 correspond to outputs 5 and 6 for the DVI DA6; switches 1-4 correspond to outputs 5-8 for the DVI DA8.



4. By default the switches are in the off/down position, allowing the EDID information to be read from the corresponding output. To deactivate EDID Minder for one or more outputs, move the switch for that output to the on/up position. In the diagram at right, the unit will read EDID from output 3, but not from outputs 1, 2, or 4.



5. Replace the cover, using the screws that were removed in step **1**.

Troubleshooting

No output signal — Check that the front panel LED is lit (amber shows that the unit is receiving power, green shows that it is also receiving an input signal). If LED is not lit, check the power supply (page 4) and the video input connections (see page 5).

No output signal or poor quality signal — Check the integrity of the cabling from the source device to the distribution amplifier and from the distribution amplifier to each of the display devices.

- DVI signals run at very high frequency and poor connections can cause degradation or loss of the signal, or jitter.
- Signal transmission distance can vary greatly and depends on signal resolution, cable type, cable quality, graphics card and the display used in the system.
- Use only cable that is designed for DVI signals.
- Limit or avoid the use of adapters or couplers.

Display device displays a flashing black or blue screen, snow or other distortion — A device that is not HDCP compliant may be receiving HDCP-encrypted signals. The DVI DA Plus series distribution amplifiers are not HDCP compliant.

Signal on some displays but not others — Reboot the source device. When the source device boots up, the EDID handling feature ensures that the output resolution of the source device matches the requirements of the display device with the lowest resolution.

If an additional display device is added, which requires an even lower resolution, the image will not be displayed correctly on that monitor until the source device is shut down and rebooted. At that time, EDID handling ensures that the output resolution of the source device is recalibrated to meet the needs of the additional display device.

Reference Information

This section provides information about:

- Specifications
- Included Parts
- Optional Accessories

Specifications

Video

Maximum data rate	4.95 Gbps (1.65 Gbps per color)
Maximum pixel clock	165 MHz
Resolution range	Up to 1920x1200 or 1080p @ 60 Hz
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI 1.2

Video input

Number/signal type	1 single link DVI-D (or HDMI*)
Connectors	1 female DVI-I

NOTE: *Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.

Video output

Number/signal type	4, 6, or 8 (depending on model) single link DVI-D (or HDMI*)
Connectors	4, 6, or 8 female DVI-I

NOTE: *Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.

General

External power supply	100 VAC to 240 VAC, 50-60 Hz, external; to 12 VDC, regulated
DVI DA4 Plus	1 A
DVI DA6 Plus, DVI DA8 Plus	3 A
Power input requirements	12 VDC
DVI DA4 Plus	1.0 A (max.)
DVI DA6 Plus, DVI DA8 Plus	1.5 A (max.)
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Convection, no vents
Mounting	
Rack mount	Yes, with included brackets
Furniture mount	Yes, with optional under-desk mounting kit
Enclosure type	Metal

Enclosure dimensions	
DVI DA4 Plus	1.75" H x 8.75" W x 3.0" D (1U high, half rack wide) (4.4 cm H x 22.2 cm W x 7.6 cm D) (Depth excludes connectors.)
DVI DA6 Plus, DVI DA8 Plus	1.75" H x 17.5" W x 8.5" D (1U high, full rack wide) (4.4 cm H x 44.4 cm W x 21.6 cm D) (Depth excludes connectors.)
Product weight	2.8 lbs (1.3 kg)
Shipping weight	5 lbs (3 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, CUL, UL
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%

Specifications are subject to change without notice.

Part Numbers and Accessories

Included Parts

Description	Part Number
DVI DA4 Plus	60-931-01
or DVI DA6 Plus	60-932-01
or DVI DA8 Plus	60-933-01
12 VDC, 1 A desktop power supply (for use with DVI DA4 Plus)	70-775-01
or 12 VDC, 3 A desktop power supply (for use with DVI DA6 Plus and DVI DA8 Plus)	70-380-01
(1) IEC cord	
(4) Rubber feet (not attached)	
MBD 149 rack mount kit (DVI DA6 Plus and DVI DA8 Plus only)	70-077-03
Setup Guide — DVI DA2 and DVI DA4	

Optional Accessories

Description	Part Number
RSF 123 (3.5 inches deep, 1U rack shelf kit)	60-190-20
RSB 123 (3.5 inches deep, 1U basic rack shelf)	60-604-21
RSU 126 (6 inches deep, 1U rack shelf kit)	60-190-10
RSB 126 (6 inches deep, 1U basic rack shelf)	60-604-11
RSU 129 (9.5 inches deep, 1U rack shelf kit)	60-190-01
RSB 129 (9.5 inches deep, 1U basic rack shelf)	60-604-02
MBD 149 rack mounting kit (for DVI DA6 Plus and DVI DA8 Plus)	70-077-03
MBU 149 under desk mounting kit (for DVI DA6 Plus and DVI DA8 Plus)	70-222-01
MBU 123 under desk mounting kit (for DVI DA4 Plus only)	70-212-01
DVID SL series (3, 6 or 15 feet single link DVI-D male to male patch cables)	26-585-0x
IN9700 series (6, 25, 35, 50 or 75 feet single link DVI-D male to male long distance extension cables)	26-584-0x

Mounting

This section outlines the various mounting options available for the DVI DA Plus series of distribution amplifiers:

- Tabletop Placement
- Rack Mounting
- Under-desk Mounting

Tabletop placement

Attach the four provided rubber feet to the bottom of the unit and place it in any convenient location.

Rack mounting

UL guidelines for rack mounting

The following Underwriters Laboratories (UL) guidelines are relevant to the safe installation of these products in a rack:

Elevated operating ambient temperature — If the unit is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the equipment in an environment compatible with the maximum ambient temperature (Tma: +122 °F, +50 °C) specified by Extron.

Reduced air flow — Install the equipment in the rack so that the equipment gets adequate air flow for safe operation.

Mechanical loading — Mount the equipment in the rack so that uneven mechanical loading does not create a hazardous condition.

Circuit overloading — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Give appropriate consideration to the equipment nameplate ratings when addressing this concern.

Reliable earthing (grounding) — Maintain reliable grounding of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (such as the use of power strips).

Rack mounting the DVI DA4 Plus

The DVI DA4 Plus can be mounted a range of (optional) rack shelves (see Optional Parts on page 12). To mount the units, follow the instructions provided with the rack mounting kit.

Rack mounting the DVI DA6 Plus and DVI DA8 Plus

The DVI DA6 Plus and DVI DA8 Plus distribution amplifiers can be mounted using the Extron MBD 149 rack mount kit (provided) following the instructions provided with the MBD 149.

Under-desk mounting

Mount the DVI DA6 Plus or DVI DA8 Plus under furniture, using the optional Extron MBU 149 under-desk mounting kit (part #**70-222-01**). Mount the DVI DA4 Plus using the optional Extron MBU 123 under-desk mounting kit (part #**70-212-01**). Follow the instructions provided with the appropriate kit.

Extron Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:
Extron Electronics
1001 East Ball Road
Anaheim, CA 92805
U.S.A.

Japan:
Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

Europe, Africa, and the Middle East:
Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:
Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Asia:
Extron Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Middle East:
Extron Middle East
Dubai Airport Free Zone
F12, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or a modification to the product that was not authorized by Extron.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at

- 714.491.1500 (USA),
- 31.33.453.4040 (Europe),
- 65.6383.4400 (Asia), or
- 81.3.3511.7655 (Japan)

to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

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